

to estimate extent of use by wild animals. Elephant (60.6 dung piles/Sq.Km) density was high followed by Gaur (27.3 dung piles/Sq.Km) and Sambar (12.1 pellet groups/Sq.Km) along the EPT in CRFD and GSWLS. The people opined that there was no change in area of cultivation (82%), crop species (85%) and their efforts to protect the crops (98%). Most of the people (90%) have perception that the maintenance is duty of forest department. This present study found that the EPT was not up to the mark (2.5m length; 2.5m width; 1m basal area), there is no provision for annual maintenance of the forest department, the geographical selected for EPT was abutting steep slope and finally lack of community participation resulted in poor effectiveness of EPT against HEC. A huge amount is being spent on digging EPT every year by the forest department therefore ending with a poor result is unfortunate. Policy level change is urgently warranted for successful use of EPT against HEC. There is a need to evaluate past efforts in terms of costs, quality of application and the effectiveness (factors that contributed to success or failure). There is also a need to develop best practices manual whose guidelines must be mandatory for erection of any barrier.

Spatial Distributions of Sumatran Rhino Calf at Way Kambas National Park Based on its Footprint and Forest Fire in One Decade (2006 to 2015)

Widodo Ramono, Arief Rubianto, Yusep Herdiana
Rhino Protection Unit Program

Counting rhino footprint numbers is often a basic requirement for determining the existence of the species. Then, counting animals to estimate their population sizes is often essential for their management and conservation. However, this task is deceptively simple and no single best approach exists; techniques that work well in some situations are useless in others. Movement processes are, however, difficult to model mathematically. They are the result of extremely complex interactions between an organism's internal state, behavioral tendencies and environmental cues. The data are multi-dimensional and almost always non-independent, and there is no consensus on the appropriate statistical summaries or underlying models. This article intends to map rhino calves' footprints and forest fires findings to ensure the existence of rhino calves over one decade. Rhino Protection Units (RPU) provides basic data on the spatial distributions in the Way Kambas National Park (WKNP). There are only 66 rhino footprint findings between 2006 and 2015 in the area longitude between 105.4107 to 105.5157 and latitude between -4.4950 to -5.0357. Spatial distribution also shows that disturbances have covered spatial distribution of footprints finding. The data from RPU indicates that forest fires had increased significantly from 40 events in 2006 to 48 and 86 in 2014 and 2015, respectively. However, the size of areas burned decreased from 32,049 hectares in 2006 to 1,631 hectares and 465 hectares in 2014 and 2015, respectively. An increase in the amount of forest fires in the last two years must be recognized as a threat to the survival of the Sumatran rhino or other species. Furthermore, spatial distribution also describes that the outspread of human disturbances in line with the outspread of rhino footprint findings. It is certainly more pressure on the habitat and the existence of the Sumatran rhino. Through active patrolling between WKNP forest rangers and RPU teams, the poaching and forest fires are monitored and legal actions are taken. However, this approach still must be intensified and focused on bringing the perpetrators to justice.